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Targeting and supporting Industrial Symbiosis in the steel industry through the Symbio-Steel project

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Industrial Symbiosis is not a new concept in the steel sector. However, to achieve new opportunities and new synergies, it is crucial to involve other sectors and public authorities, making them aware of Industrial Symbiosis activities already done by the steel industry and the possible barriers hindering synergies and co-operations.
In this context, the project entitled "Fostering Industrial Symbiosis solutions for the steel sector by results monitoring and dissemination from national and EU funded projects coupled to definition of cross-sectorial synergy scenarios"(Symbio-Steel –G.A. No. 101156509), which is funded by the European Research Fund for Coal and Steel (RFCS), aims at analysing the current status, upcoming techniques, and developments of Industrial Symbiosis implementation, to achieve proactive cross-sectorial cooperation and integrations.
Symbio-Steel contributes to paving the way to uptake Industrial Symbiosis solutions in the steel sector, exploiting and spreading knowledge of the most promising and available results of symbiotic initiatives as well as supporting synergies with other industrial sectors.
By evaluating, promoting and improving existing synergies in Industrial Symbiosis involving the steel industry, Symbio-Steel is aligned with the Strategic Research & Innovation Agenda on decarbonization and resource efficiency, sustainability, and circular economy in the steel production. Symbio-Steel will provide comprehensive guidelines facilitating the transformation of the steel sector towards low-carbon practices. To this aim, gaps between current capabilities and future needs are being identified, fostering collaboration among industry stakeholders, and attracting and recruiting young talents.
During Symbio-Steel, to monitor and assess the impact and the effectiveness of Industrial Symbiosis initiatives involving the steel sector and other energy intensive industries, ad-hoc relevant Key Performance Indicators were defined and selected. They quantitatively sized the progress of Industrial Symbiosis activities in terms of resource efficiency, emission reduction, and cross-sectoral industrial integration. On the other hand, a wide portfolio of technologies and technical solutions developed by the steel industry with other relevant industrial sectors was provided, by revising the main outcomes of relevant regional and EU funded projects. In addition, specific barriers to implementing Industrial Symbiosis practices, including impacts on companies, the environment, and society, as well as different issues affecting networks, were identified. Stakeholders were also consulted through an online survey to identify their perception in terms of demands, opportunity and obstacles concerning Industrial Symbiosis.

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